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United States Patent [19][11] **Patent Number:** **6,104,808****Alameh et al.**[45] **Date of Patent:** **Aug. 15, 2000**[54] **PORTABLE COMMUNICATION DEVICE
WITH SPEAKERPHONE OPERATION**[75] Inventors: **Rachid M. Alameh**, Schaumburg;
Robert Zurek, Antioch, both of Ill.[73] Assignee: **Motorola, Inc.**, Schaumburg, Ill.[21] Appl. No.: **09/143,887**[22] Filed: **Aug. 31, 1998**[51] **Int. Cl.⁷** **H04M 1/00**[52] **U.S. Cl.** **379/433**[58] **Field of Search** 379/420, 368,
379/433, 428; 455/575, 90[56] **References Cited****U.S. PATENT DOCUMENTS**

5,224,151	6/1993	Bowen et al. .	
5,465,401	11/1995	Thompson .	
5,729,604	3/1998	Van Schyndel .	
5,790,679	8/1998	Hawker et al. .	
5,828,965	10/1998	Brown et al. .	
6,046,730	4/2000	Bowen et al.	379/368

OTHER PUBLICATIONS

International Application Number: PCT/US93/11291, International Publication Number: WO 94/13088, "Housing Assembly For A Wireless Communication Device", Nov. 22, 1993, Motorola, Inc., Kevin Kaschke, 41 pages.

Applicants: Colonna, Frank C. et al., US Patent Application Serial No. 09/081,843, filed in the name of Motorola, Inc. on May 20, 1998, entitled: "Mode-Switchable Portable Communication Device and Method Therefor".

Applicant: Clark, Joel, US Patent Application Serial No. 09/079,013, filed in the name of Motorola, Inc. on May 14, 1998, entitled: "Integrated Speaker and Assembly of a Portable Electronic Device".

Primary Examiner—Jack Chiang*Attorney, Agent, or Firm*—Paul J. Bartusiak[57] **ABSTRACT**

A radiotelephone (100) comprises a first housing element (202) and a second housing element (204), wherein the second housing element (204) is movably connected to the first housing element (202) such that the second housing element (202) is settable to a substantially open position and a substantially closed position. A single speaker is utilized for private mode operation when the second housing element (202) is in the substantially open position and speakerphone operation when the second housing element (202) is in the substantially closed position. An internal opening (209), a first sound (270), and a second sound port (211) port sound such that the inside of the first housing element (202) acts as an acoustical suspension enclosure to improve audio quality in the speakerphone mode of operation.

15 Claims, 2 Drawing Sheets